

# Town of Buena Vista

## Planting Guide

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Board of Trustees on

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**I. General Design Standards--Landscape Plans.**

**A. Site Design Criteria.** Proposed landscape site plans, whether submitted as part of an application for subdivision, a building permit, or for some other type of land use development approval, shall be reviewed for compliance with the following general design principles:

- (1) All elements of the site plan shall be arranged to create a safe, functional, durable and attractive environment.
- (2) Existing desirable environmental features and views shall be preserved to the greatest extent possible through proper site layout and design.
- (3) Site grading shall be designed and implemented to retain as much existing tree cover as possible, make use of existing natural drainage ways, avoid increased runoff and erosion, and provide buffering of objectionable noise and views. The land shall be contoured to transition smoothly.
- (4) Extremes in temperature, sunlight, wind and other climatic factors shall be moderated by appropriate site layout and design.
- (5) Safe and convenient pedestrian and vehicular circulation shall be provided.
- (6) All buildings, parking lots and other structures shall be located in a manner to integrate with the natural topography and to avoid deep cuts and fills, excessive foundation wall depth, and unnecessary steps and steep access gradients.
- (7) The following spacing standards shall be used:
  - (a) Small trees shall be spaced at least ten (10) feet between trees.
  - (b) Medium trees shall be spaced at least twenty (20) feet between trees.
  - (c) Large trees shall be spaced at least thirty (30) feet between trees.If adjacent trees are of different classifications, the distance between such trees shall be calculated as if both trees were of the larger of the two (2) classifications.
- (8) Spacing of trees from sidewalks shall be as follows:
  - (a) Small trees shall be at least two (2) feet from the sidewalk.
  - (b) Medium trees shall be at least two (2) feet from the sidewalk.
  - (c) Large trees shall be at least three (3) feet from the sidewalk.
- (9) Trees must be planted a minimum of twenty feet (20') from any street corner measured from the point of nearest intersecting curb or curb lines. Trees shall be planted at least ten feet (10') from any fire hydrant.

**B. Xeriscape Landscape Techniques.** The use of xeriscape landscape practices shall be encouraged in order to minimize the need for watering. The following techniques are strongly encouraged:

- (1) Soil improvement by loosening topsoil and incorporating appropriate organic matter.
- (2) Minimizing turf area.
- (3) The use of native and drought tolerant plants, and the clustering of plants with the same water requirements.
- (4) The utilization of properly designed and efficient irrigation systems with separate zones for each group of plants with different watering needs.
- (5) The use of organic mulches to reduce weed growth, promote soil cooling and reduce evaporation.
- (6) The consistent maintenance of landscape areas to encourage healthy, disease-free plants.

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**C. Vision Obstruction at Intersections.** Landscape plans shall comply with requirements of Section 11-86 of the Municipal Code.

**D. Tree and Vegetation Preservation Plans--Tree Credits.** In that the need to alter the landscape during site development activities is recognized, the following standards are designed and intended to ensure tree preservation to the greatest extent possible:

- (1) Where the removal of desirable existing trees and vegetation can be avoided, or where tree and vegetation removal would be detrimental to a site's overall appearance, function or environmental condition, the Planning and Zoning Commission may require preservation of such trees and vegetation and advise the applicant to proceed to submit alternative site designs to ensure the preservation of existing trees.
- (2) When existing trees are preserved, tree credits shall be granted and applied in accordance with the following criteria:
  - (a) The health, appearance and desirability of the tree species in its existing location.
  - (b) The function of an existing tree in providing erosion control, shade, wind protection, visual buffering and aesthetic enhancement.
  - (c) The ability of the tree to withstand construction impacts.
  - (d) Trees two (2) to eight (8) inches in caliper shall be credited on a one for one basis. Trees greater than eight (8) inches in caliper shall be credited on a two for one basis.
  - (e) Tree credits shall not exceed fifty percent (50%) of the number of required trees.
- (3) Subdivision applications shall be accompanied by a landscape/tree plan prepared from aerial photography or from a site survey drawn to scale which:
  - (a) Locates, identifies by common name and indicates by caliper the size of each tree. Plans shall clearly indicate those trees to be saved and those proposed for removal.
  - (b) Identifies significant vegetation on drainage ways and steep slopes by common names.
- (4) Existing trees and vegetation to be saved shall be protected from all construction activities, including earthwork operations, the movement and storage of equipment and materials, and the dumping of toxic materials. At a minimum, a protection zone shall be established around all trees by installing temporary fencing no closer to the tree than its drip line. The protective fencing shall be maintained throughout the construction period. The Planning and Zoning Commission may approve alternate or additional protection measures upon request.

**E. Seeding and Planting.** The following grasses, shrubs and trees constitute acceptable landscape plantings and have been selected for use based on their irrigation and maintenance requirements.

- (1) **Group 1.** Grasses, shrubs and trees in this classification require minimal irrigation and respond best to the following watering schedules:

First year--Water every week.  
Second year--Water every three weeks.  
Third year--Water every month.  
Fourth year--Water only during extended dry periods.

**Grasses and Shrubs**

Blue Gramma Grass - *Bouteloua gracilis*  
Crested Wheatgrass - *Agropyron cristatum*  
varieties

**Trees**

One Seed Juniper - *Juniperus*  
*monosperma*  
Colorado Pinyon Pine - *Pinus edulis*

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Mountain Sage - <i>Seriphidium (Artemisia) tridentata</i>	Ponderosa Pine - <i>Pinus ponderosa</i>
Mountain Mahogany - <i>Cercocarpus montanus</i>	
Dwarf Smooth Sumac - <i>Rhus galbra cismontana</i>	
3-Leaf Sumac - <i>Rhus trilobata</i>	
Wild Rose - <i>Rosa Woodsii</i>	
Yucca - <i>Yucca glauca</i>	
Thimbleberry - <i>Oreobatus (Rubus) deliciosus</i>	
Rock Spirea - <i>Holodicus dumosus</i>	
Cliff Jamesia - <i>Jamesia americana</i>	

- (2) **Group 2.** Grasses, shrubs and trees in this classification require more frequent irrigation than Group 1 plants and respond best to the following watering schedules:

First year—Water every week.

Second year—Water every two weeks.

Third year on—Water every three or four weeks.

### Grasses and shrubs

Sheep Fescue - *Festuca ovian*  
 Blue Fescue - *Festuca ovina glauca*  
 Western Wheatgrass - *Agropyron smithii*  
 Streambank Wheatgrass - *Agropyron riparium*  
 Rocky Mountain Maple - *Acer glabrum*  
 Mountain Ninebark - *Physocarpus monogynum*  
 Bush Cinquefoil - *Pentaphylloides (Poteniella) floribundy*  
 Chokecherry - *Padus (Prunis) virginana*  
 Spreading Junipers - *Juniperus chinensis vars., Juniperus sabina vars., Juniperus horisontalis vars.*  
 Common Juniper - *Juniperus communis*  
 Mugho Pine - *Pinus mugo mughus*  
 Mountain Snowberry - *Symphoricarpus rotundifolius (orephyllus)*

### Trees

Canada Red Cherry - *Prunus virginana "Schubert's Select"*  
 Apple vars. - *Malus sp.*  
 Flowering Crabapple vars. - *Malus sp.*  
 Montmorency Cherry - *Prunus "Montomorency"*  
 Bristlecone Pine - *Pinus aristata*  
 Douglas Fir - *Pseudotsuga menziessi*  
 Limber Pine - *Pinus flexilis*  
 New Mexico Locust - *Robinia neomexicana*

- (3) **Group 3.** Grasses, shrubs and trees in this classification require extensive and frequent irrigation and are acceptable for planting only because they are native to the local area. Group 3 plants should be placed only along watercourses and/or in areas prone to wet/moist conditions and respond best to the following watering schedules:

First year—Water twice a week.

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Second year–Water once week.

Third year on–Water every two weeks.

**Grasses and Shrubs** (Note: Turf grasses will normally require irrigation at least once every five days.)

Turf-type Fescue vars. - *Festuca* vars.

Kentucky Bluegrass - *Poa pratensis* vars.

Common lilac - *Syringa vulgaris*

Red Twig Dogwood - *Swida* (*Cornus*)  
*sericea* (*stolonifera*)

Western Thimbleberry - *Rubus* (*Rubus*)  
*parviflorum* (*parviflorus*)

Shrub Willows - *Salix* vars.

Red Elderberry - *Sambucus microbotrys*

Nanking Cherry - *Cerasus* (*Prunus*)  
*tomentosa*

Spirea vars. - *Spirea bumalda* vars.

Pixwell Gooseberry - *Ribes* “Pixwell”

### Trees

Thinleaf Alder - *Alnus tenuifolia*

Quaking Aspen - *Populus tremuloides*

Eurasian Aspen - *Populus tremula*

Lanceleaf Poplar - *Populus accuminata*

Narrowleaf Cottonwood - *Populus*  
*angustifolia* (*male*)

White Poplar - *Populus alba* (*male*)

Green Ash - *Fraxinus pennsylvanica*  
vars.

Colorado Spruce - *Picea pungens*

Engelman Spruce - *Picea engelmannii*

- (4) **Substitutions.** Alternative grasses, shrubs and/or trees may be offered in substitution of those listed above so long as they have demonstrated watering requirements no greater than those specified in the Group 1 or Group 2 planting lists.
- (5) **Warranty Requirement.** All seeding and/or plantings shall be warranted against disease and death for not less than two (2) years from the date of planting. Developer/planters shall be required to promptly remove and replace dead or dying plantings and to post financial security securing the replacement of diseased and/or dead plantings with identical or comparable live and healthy plantings during the initial two (2) year growing (warranty) period.
- (6) **Plant Material Standards--Minimum Tree Sizes.**
- (a) Plant material shall conform to American Standards for Nursery Stock. Plant material shall be of standard quality, true to name and type, and first class representatives of their species or variety.
  - (b) Plants shall have normal, well-developed branches and vigorous root systems and be free from defects, decay, sunscald, abrasions of the bark, insect pests, and all forms of infestations or objectionable disfigurement. Bare root plants shall not be used for plantings on town-owned property.
  - (c) Balled and burlaped plants shall have solid balls of adequate size (nine times (9×) the diameter of the caliper) securely wrapped with burlap or canvas and tightly bound with rope or twine.

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- (d) Evergreen trees must be a minimum of five feet (5') in height. Deciduous trees must be a minimum of one and a half inches (1.5") in caliper. The minimum size of shrubs and other plants will be specified on an approved landscape design or planting plan.
- (e) All plant material may be subject to inspection prior to installation or use.

**(7) Planting Methods and Techniques.**

- (a) No plant pits shall be excavated or prepared unless their location has been identified on an approved landscape plan or otherwise approved by a representative of the Town of Buena Vista.
- (b) Excavations prepared for balled and burlaped or container plants shall have sloping sides and be three times (3×) the width of the widest part of the root ball, and have a depth equal to the height of the root ball.
- (c) Backfill for all plants shall be 25% organic material (peat or compost) and 75% native soil. Upon inspection of the planting site, the town may require that locally available topsoil be added to the native soil. Unless specified otherwise, native soil must be used. All backfill shall be evenly mixed and firmed to eliminate air pockets. Water shall be applied during or immediately after planting. After a deep soaking with water, additional backfill soil shall be used to fill any holes created by settling. Additional backfill must be applied before the landscape fabric and mulch is installed. After the plant is completely installed, additional watering shall be applied to ensure complete saturation of the root ball and surrounding backfill.
- (d) All holes and cavities between a root ball and surrounding soil shall be filled for all plants moved with a tree spade. The root ball shall be soaked with water after planting.
- (e) All plants should be centered in the planting pit with the surface of the root ball even with, or slightly above, the surrounding undisturbed soil.
- (f) All trees, whether deciduous or evergreen, shall be guyed for one year on at least two (2) sides utilizing grommetted fabric tree straps at least one inch (1") wide to keep the tree and root ball stable. The tree trunk should be able to move one inch (1") in any direction. Rubber hose or bare wire shall not be used to stabilize a tree. Straps may be removed after one year.
- (g) It shall be the responsibility of the developer/planter to locate all underground utilities prior to undertaking any excavation.
- (h) All tree and shrub plantings shall have woven landscape fabric and coarse wood chip mulch installed over the root system at the time of planting. The landscape fabric shall be attached to the ground with 6" landscape staples and mulch must be at least three inches (3") deep, but not be any deeper than one inch (1") against the tree trunk or plant stem. The town may waive this requirement in certain instances upon request.
- (i) A four to six inch (4" to 6") deep watering dish at least as wide as the original planting hole will be constructed around all new tree and shrub plantings unless it is deemed unnecessary by the town. The watering dish shall be maintained by the developer/contractor for the duration of the required warranty period.
- (j) There shall be a minimum of twenty-five (25) square feet of porous surface around all newly planted trees.

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**(8) Workmanship Planting Standards.**

- (a) Plant material shall be handled in a manner to avoid damage during the planting process.
- (b) Plants shall always be handled by their container or soil ball. Under no circumstances should plants be dragged, lifted, or pulled by the trunk or foliage parts.
- (c) Trees and shrubs with loose root balls will be considered substandard and shall not be planted.
- (d) Plantings shall be handled, secured and covered so as to prevent damage from wind or vibration during transport to a planting site. Plants should never be thrown or bounced off a truck or loader to the ground.
- (e) Plant material shall be planted the day it is delivered to the site, or shall be watered and covered to prevent dehydration until planting can occur.
- (f) In cases where trees are apt to have their trunks damaged during transport or in the planting process, the trunks shall be protected with padding.
- (g) Trees and shrubs should be planted at those times of the year during which proper root development can occur. In Buena Vista, that period is April through September.
- (h) Trees and shrubs should not be excavated, balled and burlaped or moved with a tree spade during an active growth period.
- (i) All twine, rope and plant labels secured around the trunk of a tree shall be removed after planting is completed.
- (j) Trees or shrubs that have soil balls secured in a wire basket shall have the entire basket removed after the plant is placed in the planting pit and before backfilling occurs. Burlap shall be removed to the maximum extent possible while maintaining the integrity of the root ball (minimum of one-third (1/3) of the burlap shall be removed).
- (k) Evergreen trees with an excessively bushy form of growth shall have the boughs tied with rope or twine during transport and planting to avoid damage to the foliage and branches. All boughs shall be released after planting.
- (l) Any abrasions of the bark or broken limbs/branches caused during planting shall be treated or corrected immediately. Pruning paint or tar shall not be used to cover wounds.
- (m) The cleanup of soil, branches or other debris resulting from any tree or shrub planting shall be promptly accomplished. Work areas shall be kept safe at all times until the cleanup operation is complete. Under no condition shall the accumulation of surplus soil, discarded branches or other debris be allowed upon public property.
- (n) Excavated plant pits in or near public streets, walkways or other rights-of-way shall be adequately barricaded with appropriate fencing or other warning devices until filled.

**II. Non-Residential Development Landscaping Requirements.**

The following standards shall apply to all new commercial, office, industrial and other non-residential development, and to expansions and modifications of existing non-residential development.

**A. Internal Parking Lot Landscaped Areas.** Every parking lot over 10 spaces or 3500 square feet of surface area, whichever is less, shall contain internal landscaped areas based on the following design criteria:

- (1) The following percentage of the total parking lot area for each parking lot shall be dedicated to internal landscaped areas:
  - (a) For retail, office and commercial sites - 7.5% of total parking lot area.

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- (b) For industrial or warehouse sites - 5% of total parking lot area.
- (2) Total parking lot area shall be measured along the perimeter of the lot and include all parking spaces, access drives, cruise lanes and non-landscaped islands. Total lot area shall not include loading and service areas; but shall include drive-up customer service areas, drives, and maneuvering areas that are jointly used by parking lot and service traffic.
- (3) Landscaped islands shall be a minimum of eight feet (8') in width and one hundred twenty-five (125) square feet in total area. A minimum of one tree shall be planted per three hundred (300) square feet of overall internal landscaped area, with at least one tree planted in each island. The remainder of the island shall be landscaped with additional trees, shrubs, ground cover or turf. Plantings shall anticipate foot traffic patterns, be used to discourage foot traffic where dictated by safety concerns, and shall be planted so as to provide adequate visibility for the safety of pedestrians and vehicles.
- (4) Landscaped islands shall be located based on the priority of (a) defining major drives and cruise lanes, (b) delineating the end of parking rows, (c) at aisle intersections, and (d) internal to the parking rows themselves.

**B. Landscaping for Monument Signs.**

- (1) An area equal to three times (3×) the size of the sign monument footprint shall be landscaped.
- (2) Landscaping around a monument sign shall, at a minimum, include:
  - (a) One shade tree per 1000 square feet of required landscaped area, and
  - (b) One ornamental tree per 400 square feet of required landscaped area, and
  - (c) One shrub per 30 square feet of required landscaped area.
- (3) Landscaped area shall surround and integrate the monument sign, and shall use various materials of different heights and textures to provide design interest. Street trees and additional shade trees, where required, should accent the sign while assuring visibility. Ornamental trees should be used for accent and for screening the highway. Shrubs should be massed to provide a three-dimensional impact in contrast to the flat surfaces of the monument sign.
- (4) When a new monument sign is installed on a site of less than 330 feet (330') of road frontage, the entire frontage on which the sign is located shall be brought up to current standards for perimeter planting.

**C. Site Features, Buffering and Screening.** Site features, such as but not limited to the following, shall be effectively screened from the view of roadways and adjacent sites by berms, fences, walls and/or plant material:

- (1) Trash Receptacles shall be screened from view by fencing or wall. The fence or wall shall be a minimum of six feet (6') in height, provide complete visual screening at ground level, and be compatible in material and color with the principal structure on the lot. Screening may be waived in rear and rear side-yard locations adjacent to other service or mechanical areas, or where not subject to off-site observation at ground level.
- (2) Outdoor storage areas shall be screened from view by privacy fences or walls with a minimum height of six feet (6') in accordance with the fence regulations of the Municipal Code. Non-opaque fencing, such as chain-link, may be used to satisfy the requirements of this section if sufficient plant material is provided to effectively screen the storage area from view.
- (3) Service and loading areas shall be screened by perimeter plantings or, when required, by land use buffers.



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- (4) Ground-mounted utility boxes, meters and mechanical equipment shall be screened from view by landscaping or architectural elements compatible in material and color with the primary structure. Screening may be waived in rear and rear side-yard locations adjacent to other service or mechanical areas, or where not subject to off-site observation at ground level.

**D. Installation, Irrigation, Maintenance and Replacement.** The following minimum standards shall be applied with respect to the installation, maintenance, irrigation and replacement of all trees and landscape material:

- (1) All landscaping and buffering shall be designed to encourage vigorous growth. Containers hindering root development must be removed, including fiber pots, grow bags and wire baskets. Soil improvement measures including, but not limited to, minimum topsoil depths, shall be utilized to ensure healthy plant growth.
- (2) Prior to the issuance of a certificate of occupancy for any structure on a lot, site or parcel subject to the landscaping requirements set forth in this section, the developer/landowner shall submit a certificate of compliance to the Building Inspector verifying that all plant material has been installed in compliance with the approved landscape plan for the site, if any, and the requirements of this Planting Guide. A certificate of occupancy shall not be issued for any structure absent compliance with the terms and conditions of an approved landscape plan and the applicable provisions of this Planting Guide.
- (3) Landscape areas shall be irrigated as necessary to maintain required plant materials in a good and healthy condition. Irrigation systems shall comply with the following standards:
  - (a) All landscape areas shall be served by a readily available water supply with at least one outlet within 100 feet (100') of the plants to be maintained. The use of non-potable water for irrigation purposes is encouraged.
  - (b) Temporary irrigation systems installed pursuant to acceptable xeriscape landscape practices may be used to meet the standards of this section.
  - (c) Irrigation systems shall be continuously maintained in working order and be designed so as to not duplicate water zones or to water impervious areas.
  - (d) Whenever practical, irrigation systems shall be designed in zones to apply water onto shrub and tree areas on a less frequent schedule than those irrigating turf/lawn areas. When technically feasible, a rain-sensor switch shall be installed on systems with automatic controllers.
  - (e) No irrigation system abutting a public street shall be installed or maintained which causes water from the system to spurt onto the roadway or to strike passing vehicular traffic.
  - (f) All irrigation systems shall comply with those provisions of the Uniform Plumbing and/or Building Codes applicable thereto, if any.
- (4) All landscaping shall be maintained free from disease, pests, weeds and litter. Maintenance shall include weeding, watering, fertilizing, pruning, mowing, edging, mulching or such other maintenance required pursuant to standard horticultural practices.
- (5) All landscape structures (e.g., walls, fences) shall be maintained in a structurally sound condition and in good appearance.
- (6) Dead, diseased or dying trees or other vegetation installed or maintained as part of an approved landscape plan shall be promptly replaced with healthy trees and/or vegetation of comparable type, age and size. The replacement of dead, diseased or dying trees or vegetation may be delayed to correspond with the next available planting/growth season.

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- E. Substitution of Plant Materials.** The Town Administrator, or his/her designee, may authorize the installation of comparable substitute plant materials to satisfy the requirements of an approved landscape plan when the plants or landscape materials specified in the plan are not available at the required time for installation, or when other unforeseen conditions prevent the use of the materials specified in the approved plan. Significant amendments to previously approved landscaping plans shall be subject to prior review and approval by the Planning and Zoning Commission.

### Definitions

*Caliper* means the diameter of the trunk of a tree measured at a point six feet (6') above the ground surface.

*Drip Line* means the circle that would be drawn on the ground surface around a tree directly under and corresponding to the perimeter of its outermost branch tips.

*Ornamental Tree* means a tree with a mature height of fifteen (15) to forty (40) feet. Usually the canopy spread of an ornamental tree is sixty to one hundred percent (60%–110%) of the mature height. Many ornamental trees have decorative features such as flowers or different leaf color. Examples include Canada Red Cherry and varieties of flowering Crabapples.

*Shade Tree* means a tree with a mature height of forty feet (40') or greater, and a branch spread equal to at least 30% of the tree height. Narrowleaf Cottonwood and Green Ash are examples of shade trees.

*Tree* means and includes trees, perennial plants and shrubs of all kinds.

*Treecurb Area* means that area within a street right-of-way that separates roadway, gutter and curb from sidewalk.

*Tree Board* means the citizen volunteer board created by Section 2-201 of the Municipal Code.

*Tree, large* means a tree with a projected maximum height at maturity greater than twenty-five feet (25').

*Tree, medium* means a tree with a projected maximum height at maturity of between fifteen (15) and twenty-five (25) feet.

*Tree, small* means a tree with a projected maximum height at maturity of not greater than fifteen feet (15').

*Tree Lawn* means a landscaped area lying between the curb or pavement edge of a street and the adjacent property, and which may be traversed by sidewalk.

*Xeriscaping* means a landscape design and construction technique which incorporates the following seven principles of water conservation: Proper planning, soil improvement, limited turf area, efficient irrigation, the proper use of mulches, use of native and drought tolerant plants, and proper maintenance.